

REMARKS

Claims 20-50 are pending. By this Amendment, no claims are cancelled, claims 20, 21, 22 and 24 are amended and no new claims are added.

Restriction Requirement

The Office Action acknowledged Applicant's election with traverse of species 1. The Office Action indicates that Applicant's assertion that at least claims 20 and 39 are generic is "not found persuasive because generic claim is the claim that read on all species." The Office Action then indicates that claims 31, 37-38 45, 47-48 "are not read on species 1, therefore, they are withdrawn from further consideration from the Examiner." It is unclear whether the Examiner is taking the position that claims 20 and 39 are not generic. Claims 21-38 depend, directly or indirectly, from claim 20. Accordingly, claim 20 reads on all of claims 21-38, which depend from it and claim 20 is generic with regard to claims 21-38. Claim 40-50 depend directly or indirectly from claim 39. Accordingly, claim 39 is generic to all of the species addressed in dependent claims 40-50 because claim 39 reads on the invention recited in all of those dependent claims by virtue of their dependency on claim 39. Accordingly, at least claims 20 and 39 are generic. Applicant requests that the Examiner reconsider the assertion that no claims are generic. Applicant specifically reserves the right to petition if the Examiner has taken the position that claims 20 and 39 are not generic.

Drawings

The Office Action indicates “the subject matter of the application admits to illustration by drawings to facilitate understanding of the invention. And, indicates that the Applicant is required to furnish a drawing under 37 CFR 1.81 (c). Applicant respectfully traverses the objection on the basis that a full set of drawings has been submitted with the application. This application comes to the United States as a National Stage Application of International Application PCT/EP2005/003066. Accordingly, drawings came to the United States Patent Office along with the International application upon entry into the National Stage. Reference to the United States Patent Office Pair System in entries dated September 20, 2006 entitled *WIPO Publication – non-English version* and *Certified Copy of Priority Application* show that full sets of drawings are of record in the application file. It can also be seen that drawings were published in the published application 2007/0193987.

However, as a courtesy to the Examiner, Applicant submits copies of the drawings. These drawings are not newly entered and no new matter has been added because the drawings are previously of record in the application. Applicant respectfully requests that the Examiner withdraw the objection.

Specification

The Office Action objected to the specification because on page 9, line 35, “cornea 8” referring to the cornea should read “cornea 4.” By this Amendment, Applicant has amended the specification to correct the obvious typographical error. Accordingly, Applicant respectfully requests that the Examiner withdraw the objection.

35 USC § 112

The Office Action rejected claims 20-30 and 39-44 under 35 USC § 112 as being indefinite.

Specifically, the Office Action indicates that in claim 20 there is insufficient antecedent basis for “the material” recited in line 4, “the beam cross section” in line 7. With regard to “the material” Applicant respectfully traverses the rejection. Antecedent basis for “the material” can be found on line 1 of claim 20, which recites “a machining device which machines *a material* by non-linear absorption of machining laser radiation.” Accordingly, there is antecedent basis for “the material.” With regard to antecedent basis for “the beam cross section,” Applicant has amended the claim to recite “a laser radiation source emitting said machining laser radiation in a beam having a cross section.” Applicant respectfully requests that the Examiner withdraw the rejections.

With regard to claim 22, the Office Action indicates that there is insufficient antecedent basis for “the modulator” and “the deflector” recited in line 2, of claim 22. By this Amendment, Applicant has amended claim 22 to provide antecedent basis.

The Office Action further rejected claim 24 indicating that there is insufficient antecedent basis for “the modulator” recited in line 2 of the claim. By this Amendment, Applicant has amended claim 24 in response to the Examiner’s concerns.

With regard to claim 39, the Office Action indicates there is insufficient antecedent basis for “the material” recited in line 2 and “the focusing” recited in line 3. With regard to “the material” Applicant respectfully traverses the rejection. Line 1 of claim 39 recites “a method for machining *a material*.” Accordingly, there is antecedent basis for this term. Applicant further

traverses the rejection based on “the focusing.” Line 2 of claims 39 recites “focusing laser radiation into or onto the material.” This recitation provides antecedent basis for “the focusing” in line 3. Applicant respectfully requests that the Examiner withdraw the rejections.

35 USC § 102

The Magnante Reference:

The Office Action rejected claims 20-24 and 39 under 35 USC § 102 (b) as being anticipated by Magnante (US 6,086,204). Applicant respectfully traverses the rejection. The Office Action alleges that the limitations of claims 20 and 39 are disclosed in figure 1 of Magnante. The disclosure of figure 1 is directed to a portion of the Magnante device that performs wave-front measurements of the eye. This portion of the Magnante device has nothing to do with material processing. Further, claim 20 recites that the polarization modulator causes the focused laser radiation to be linearly polarized with a polarization direction varying across the beam cross-section. There is no disclosure or suggestion in Magnante that the polarizer depicted in figure 1 causes the focused laser radiation to be linearly polarized *with a polarization direction varying across the beam cross section* as recited in claim 20. Accordingly, at least this limitation is not disclosed or suggested by the Magnante reference. Applicant respectfully requests that the Examiner withdraw the rejection.

Similarly, claim 39 recites the limitation “varying a polarization direction across the beam cross section.” Magnante does not disclose or suggest this limitation. Accordingly, for at least this reason, claim 39 should be patentable over the Magnante reference. Claims 21 through 38 depend from claim 20 and should be patentable for at least the same reasons as claim 20. Claims 40 through 50 depend from claim 39 and should be patentable for at least the same reasons as claim 39. Applicant respectfully requests that the Examiner withdraw the rejection.

The Campin Reference:

The Office Action further rejects claims 20-24 and 39 under 35 USC § 102 (b) as being anticipated by Campin et al. (U.S. 2003/0078753). Applicant respectfully traverses the rejection. The Campin reference also relates to wave-front analysis and the structures identified in the Office Action do not, in any way, relate to a material processing laser. Rather, the disclosure of figure 1 relates to a wave-front analysis device. The Examiner identifies “a polarization modulator 20, which Campin identifies in paragraph 32 as a “polarization sensitive beam splitter 20.” However, neither paragraph 32 nor any other disclosure in Campin discloses or suggests that this structure creates laser radiation which is linearly polarized *with a polarization direction varying across the beam cross section* as recited in claim 20 and claim 39. Accordingly, at least this limitation of claims 20 and 39 is not disclosed or suggested by the Campin reference and the Campin reference cannot anticipate either claim 20 or claim 39. As discussed above, the remaining claims in the application depend from either claim 20 or claim 39 and should be patentable for at least the same reasons. Applicant respectfully requests that the Examiner withdraw the rejection.

The Office Action further rejected claims 20 through 24 and 39 under 35 USC § 102 (b) as being anticipated by Tomita et al. (US 6,932,807). Applicant respectfully traverses the rejection. The Office Action indicates that Tomita discloses “a polarization modulator 12 (fig 4), which causes the focused laser radiation to be linearly polarized with a polarization direction varying across the beam cross section.” This is incorrect. According to the Tomita disclosure at column 4, lines 34 through 48, the structure identified by reference numeral 12 is a “polarizing filter placed at the Brewster angle.” Tomita further states, that the wavelength plate 11 is rotated by operation of an energy adjusting knob, not shown, to adjust the power of the treatment beam to be irradiated to the affected part in combination with the polarization filter 12.” This structure would not result in focused laser radiation that is linearly polarized *with a polarization direction varying across the beam cross section* as is recited in the independent claims of the present application. Further, the Office Action presents no evidence or explanation as to how the identified structures could meet this limitation of the independent claims. Accordingly, at least this limitation is not disclosed or suggested by the Tomita reference and claims 20 and 39 should be patentable for at least this reason. Claims 21 through 38 depend from claim 20, and should be patentable for at least this reason as well. Claims 40 through 50 depend from claim 39 and also should be patentable for at least this reason.

Claim 21

With regard to claim 21, the Office indicates that Magnante discloses a deflecting unit 9 in figure 1, which meets the limitations of claim 21. Applicant respectfully traverses the rejection. The deflection occurring at beam splitter 9 of Magnante cannot be changed, adjusted or even controlled. Further, Applicant has amended claim 21 to recite that the deflection is “controlled such that the focused machining laser radiation is shifted three dimensionally.” Accordingly, claim 21 should be patentable for at least this additional reason.

Claim 22

Claim 22, as amended, is patentable at least by virtue of its dependency on patentable claims 20 and 21.

Claim 23

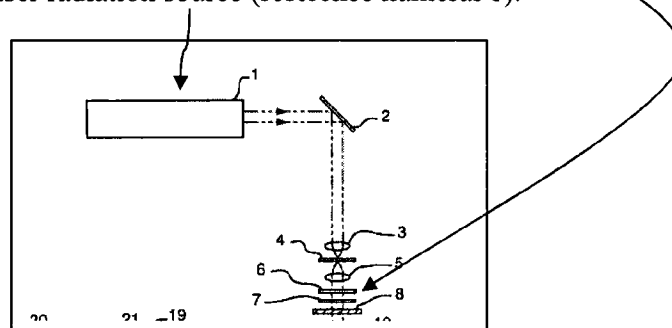
With regard to claim 23, the Office Action indicates that Magnante discloses the laser radiation source emits linearly polarized radiation and the polarization modulator 6 inhomogenously modifies the polarization direction of the laser beam across the beams cross section. As discussed above with relation to claim 20, Magnante makes no such disclosure or suggestion. In fact, Magnante discloses that beam source 1 could even be an arc lamp. See Column 5, Line 40-44. An arc lamp cannot emit polarized radiation of any sort.

With regard to the Campin reference, the laser beam source 12 of figure 1 emits polarized radiation, however, the beam splitter on which this polarized radiation impinges cannot be a polarization modulator, since if it were, laser radiation would be transmitted poorly or not at all. The beam splitter cannot and does not modify the polarization direction of the beam in an inhomogenous manner over the beam cross section.

Tomita does not disclose or suggest that the linearly polarized laser radiation has a polarization direction *varying across its beam cross section*. Thus, claim 23 is patentable for at least these additional reasons. Applicant respectfully requests that the Examiner withdraw the rejections.

Claim 24

With regard to claim 24, the Office Action indicates that Magnante discloses a polarization modulator 6 is arranged within the laser radiation source. Reference to figure 1 clearly indicates that the polarization modulator (reference numeral 6) identified by the Office Action is not within the laser radiation source (reference numeral 1).



Accordingly, claim 24 is patentable for at least this additional reason.

With regard to the Campin reference, paragraph 32 of Campin states that the laser source emits polarized radiation, which is then transmitted through the polarization beam splitter 20. However, there is no disclosure or suggestion that the radiation from the laser beam source has a *linearly polarization direction that varies over the beam cross section* as recited in Independent claim 20 from which claim 24 depends.

With respect to the Tomita reference, Tomita discloses a Nd-YAG laser. A Nd-YAG laser is quite different from a femtosecond laser, and there is no evidence presented in the Office Action that any Nd-YAG laser emits polarized radiation that has *a polarization direction that varies across the beam cross section* as recited in claim 20. Accordingly, at least these limitations are not disclosed or suggested by Magnante, Campin or Tomita and claim 24 should be patentable for at least this reason.

Claims 25, 26, 41 and 42

The Office Action indicates that claims 25, 26, 41 and 42 are obvious over the combination of Magnante in view of the Courtingley reference. However, as discussed above, Magnante does not disclose or suggest the polarization of laser radiation so that the *polarization varies across the laser beam cross section*. Additionally, Courtingly does not disclose or suggest such limitations, and the Office Action presents no evidence or explanation as to how the element disclosed by Courtingly could be used to create such a circumstance. Accordingly, claims 25, 26, 41 and 42 should be patentable for at least these additional reasons. Applicant respectfully requests that the Examiner withdraw the rejection.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

Application No. 10/593,501

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'P. Onderick', with a long horizontal flourish extending to the right.

Paul C. Onderick
Registration No. 45,354

Customer No. 24113
Patterson, Thunte, Skaar & Christensen, P.A.
4800 IDS Center
80 South 8th Street
Minneapolis, Minnesota 55402-2100
Telephone: (612) 349-5766